IN THE CLAIMS

1. (currently amended) An isolated nucleic acid molecule comprising a polynucleotide encoding a phospholipase A2γ polypeptide ~~and configured to generate transgenically generated phospholipase A2 (TGiPLA$_2$) mice~~ that supplies at least one of fatty acids for β-oxidation and hydrolyzing lipids for signaling molecules to regulate energy storage.

2. (original) An isolated nucleic acid molecule in accordance with Claim 1, wherein said phospholipase A2γ polypeptide catalyzes cleavage of fatty acids from the sn-2-position of phospholipids.

3. (previously presented) An isolated nucleic acid molecule in accordance with Claim 2 wherein said polynucleotide encodes a sequence as set forth in SEQ ID NO: 6.

4. (original) A vector comprising a nucleic acid molecule in accordance with Claim 1.

5. (original) A cell transformed or transfected with a vector in accordance with Claim 4.

6. (canceled)

7. (currently amended) An isolated nucleic acid comprising a polynucleotide having at least about 90% sequence identity with SEQ ID NO: 6 wherein the encoded polypeptide has ~~or modulates~~ an enzymatic activity, and wherein the isolated nucleic acid is configured to ~~generate transgenically generated phospholipase A2 (TGiPLA$_2$) mice~~ supply at least one of fatty acids for β-oxidation and hydrolyzing lipids for signaling molecules to regulate energy storage.

8. (previously presented) An isolated nucleic acid according to claim 7 comprising SEQ ID NO: 6.

9. (currently amended) An antisense sequence which specifically hybridizes to SEQ ID NO: 6, wherein the antisense sequence is configured to ~~generate transgenically generated phospholipase A2 ($TGiPLA_2$) mice~~ supply at least one of fatty acids for β-oxidation and hydrolyzing lipids for signaling molecules to regulate energy storage.

10-15. (canceled)

16. (currently amended) A vector comprising a nucleic acid molecule in accordance with Claim 1 suitable for generating a transgenic mouse wherein said vector comprises a reporter gene which encodes an enzyme capable of being detected by a colorimetric, fluorometric or luminometric assay.

17. (previously presented) A vector in accordance with Claim 16 wherein said reporter gene encodes a luciferase.

18-20. (canceled).

21-36. (canceled)

37. (currently amended) A transgenic construct containing a promoter upstream of [[the]] a full-length phospholipase A2 ($iPLA_2$) coding sequence ~~(SEQ ID NO: 6)~~ SEQ ID NO: 6 for myocardial specific expression of recombinant $iPLA_2$ ~~in transgenically generated phospholipase A2 ($TGiPLA_2$)~~ mice to supply at least one of fatty acids for β-oxidation and hydrolyzing lipids for signaling molecules to regulate energy storage.

38-39. (canceled)

40. (currently amended) An in vitro expression construct in which ~~a truncated~~ an $iPLA_2$ sequence is cloned downstream from [[the]] an SV40 promoter ~~of Invitrogen~~, wherein the in vitro expression construct is configured to ~~generate transgenically generated phospholipase A2 ($TGiPLA_2$) mice~~ supply at least one of fatty acids for β-oxidation and hydrolyzing lipids for signaling molecules to regulate energy storage.

41-48. (canceled)